RIVAP005US

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Serial Number:	10/707,248
Filing Date:	December 1, 2003
Applicant(s):	Maria C. Rivara
Title:	Longest-Edge Refinement and Derefinement System and Method for Automatic Mesh Generation
Group Art Unit:	2123
Examiner:	Unknown

Information Disclosure

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sirs:

Attached please find a completed three (3) sheet information disclosure form for the above-referenced application, as well as copies of two (2) newly-cited non-patent references.

This application is a continuation of pending U.S. application 09/529,037, filed April 5, 2000, now abandoned. All except for the two attached references are already of record for this parent case. Furthermore, parent 09/529,037 was relied upon for an earlier filing date under 35 USC 120. Therefore, copies of these references need not be provided under 37 CFR 1.98(d).

Furthermore, a "concise explanation of relevance" under 37 CFR 1.98(a)(3) for all except the two attached references – though optional for English-language references – has already been provided in connection with parent application 09/529,037 and will be relied up here as well.

A concise explanation of relevance for the two attached references, which are newly-cited here, follows:

Castanos et al. (1999) teach a parallel distributed method for the refinement of triangulations based on previous longest-edge methods of applicant Rivara (1984a) They do not use terminal-edge based refinement.

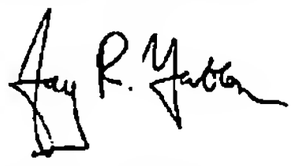
Nave et al. (2002) teach a parallel distributed method for the global refinement of Delaunay triangulations based on concurrently inserting new mesh vertices, each one of them being a circumcenter point associated to a target element in the mesh. They do not perform parallel refinement of the mesh based on terminal-edges, nor do they perform local refinement of the mesh.

Furthermore, each of these references was published after applicant's October 8, 1997 filing date for provisional application 60/061,439, as well as after the 1998 filing dates of applicant's applications US 09/162,737 and PCT/EP98/06258, all of which are relied upon for priority here.

Please add this information disclosure to the case file for consideration by the examiner.

RIVAP005US

Very truly yours,



Jay R. Yablon
Registration # 30604

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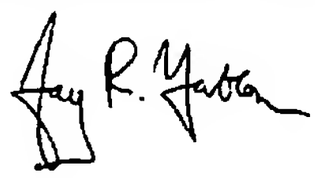

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Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet 1 of 3

Complete if Known	
Application Number	10/707,248
Filing Date	12/1/03
First Named Inventor	Maria C. Rivara
Group Art Unit	2123
Examiner Name	Unknown
Attorney Docket Number	RIVAP005US

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	U.S. Patent Document Number	Kind Code[2] (if known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		4,912,654		Weiss et al.	03-27-1990	
		5,214,752		Meshkat et al.	05-25-1993	
		5,440,674		Park	08-08-1995	
		5,798,764		Akiyama	08-25-1998	
		5,886,702		Migdal et al.	03-23-1999	
		6,046,744		Hoppe	04-04-2000	
		6,266,062		Rivara	07-24-2001	

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Foreign Patent Document Office[3]	Number[4]	Kind Code[5] (if known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T[6]

Examiner Signature		Date Considered	

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet 2 of 3

Complete if Known	
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Filing Date	12/1/03
First Named Inventor	Maria C. Rivara
Group Art Unit	2123
Examiner Name	Unknown
Attorney Docket Number	RIVAP005US

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[2]
		L. Chew, Guaranteed-quality triangular meshes, Dept. of Computer Science, Cornell University, TR 89-983, (1989).	
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		R.V. Nambiar, R.S. Valera and K.L. Lawrence, An algorithm for adaptive refinement of triangular element meshes, International Journal for Numerical Methods in Engineering, vol. 36, 499-509 (1993).	
		Ruppert, A Delaunay refinement algorithm for quality 2-dimensional mesh generation. Journal of Algorithms, vol. 18, 548-585 (1995).	
		Rebay, Efficient unstructured mesh generation by means of Delaunay triangulation and Bowyer-Watson algorithm, J. Comp. Physics, vol. 106, 125-138 (1993).	
		M. C. Rivara, Algorithms for refining triangular grids suitable for adaptive and multigrid techniques, International Journal for Numerical Methods in Engineering, vol 20, 745-756 (1984a).	
		M. C. Rivara, Design and data structure for fully adaptive, multigrid finite element software, ACM Trans. Math. Software, vol. 10, 242-264 (1984b).	
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Examiner Signature		Date Considered	

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		M. C. Rivara, Selective refinement/derefinement algorithms for sequences of nested triangulations, International Journal for Numerical Methods in Engineering, vol. 28, 2889-2906 (1989).	
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